

What You Need to Know about Bivalent Vaccines

October 21, 2022

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What are bivalent vaccines?

Keep in mind that “mono” means “one” and “bi” means “two”. So a monovalent vaccine protects against the original version of the virus (also called “the original strain”), and a bivalent vaccine protects against multiple viruses, including any variants of a particular virus. The bivalent COVID-19 boosters that will be discussed in this article contain the vaccine for the original version as well as another vaccine for the Omicron variant.

Infectious disease specialist Dr. Zain Chagla describes it like this:

“In essence, bivalent vaccines are a split between the old ‘original’ mRNA sequence and the new sequence. So for example, Moderna’s bivalent is 25 micrograms of the old vaccine, 25 micrograms of the updated vaccine.” ([source](#))

Bivalent vaccines are only offered as a booster dose, meaning you can’t get one as your first or second dose. ([source](#)) All bivalent vaccines are mRNA COVID-19 vaccines. ([source](#))

Is it safe to have two vaccines in one dose?

Yes, it is! In fact, if you’ve ever had a flu shot, then you’ve had a bivalent (or multivalent) vaccine before! Immunologist Tania Watts explains that bivalent vaccines have been a long-established method to keep up with another frequently-evolving virus: the flu. ([source](#))

She elaborates, “With [the] flu, we do three or four different variants [in one flu shot]. It’s just a mixture, and the RNA vaccines are very easy to mix and match. In theory, we could have 10 [variants targeted in one dose].” ([source](#))

What’s the point of having the vaccine for the original version of COVID-19 in the bivalent vaccine?

Dr. Volker Gerdt, who is the director and CEO of the Vaccine and Infectious Disease Organization, says that the best way to protect ourselves from COVID-19 and its variants is to get a vaccine with the broadest protection possible. ([source](#))

“The whole goal is to have multiple different types in your vaccine to provide broad protection... If we have in this vaccine representation from very different strains, or different

variants, then we can assume that we get broad protection also then against future variants,” he shares. ([source](#))

Should my children and I get a booster?

It’s recommended that everyone 5 and older get a fall booster dose 6 months after their last vaccine dose or their last COVID-19 infection. ([source](#))

Children and youth aged 5 and older are considered up to date with their COVID-19 vaccines when they receive their primary series of a COVID-19 vaccine and their booster dose(s). ([source](#))

Should my child(ren) and I get a bivalent booster or an original booster?

It depends on you and your child(ren)’s ages!

- At the moment, there isn’t a booster dose approved for children **below age 5**.
- The only booster that is approved for children **between the ages of 5 and 11** is the original pediatric Pfizer-BioNTech booster (10 mcg). ([source](#))
- For children **between the ages of 12 and 17**, the bivalent Pfizer-BioNTech booster (30 mcg) is recommended. ([source](#)) If your child is immunocompromised and in this age group, they could get the bivalent Moderna (50 mcg) booster. ([source](#))

To make the best decision for your family, contact your health care provider or call the Provincial Vaccine Contact Centre at 1-833-943-3900 to speak with a health specialist. ([source](#)) Parents/caregivers can also book a confidential phone appointment with a SickKids Registered Nurse through the COVID-19 Vaccine Consult Service (click [here](#)) or the Scarborough Health Network’s VaxFacts Clinic (click [here](#)) to speak with a doctor. ([source](#))

Dr. Vinita Dubey, Associate Medical Officer of Health, recently gave a presentation on the risk of COVID-19 in children, vaccine safety and benefits, fall boosters for children, and ways to reduce COVID-19 spread. Click [here](#) to see the slides and click [here](#) to watch the recording of the presentation.

- **For adults 18 years old and older**, a bivalent booster from either Pfizer-BioNTech (30 mcg) or Moderna (50 mcg) is recommended. ([source](#)) Both bivalent COVID-19 vaccine boosters will produce a strong immune response and provide improved protection against Omicron and its sub-variants. ([source](#))

What if I can’t get/don’t want a bivalent booster?

You can still ask for and get an original booster if you don’t want you or your child over the age of 12 to get a bivalent booster, or if you or your child over the age of 12 can’t get the bivalent booster for a medical reason. ([source](#)) If you don’t want any mRNA vaccine, and you are aged 18 and over and you don’t have contraindications, you can get a booster dose of

Novavax Nuvaxovid (0.5 mL). ([source](#)) You and the person who is vaccinating you will discuss the risks and benefits to make sure that you are giving informed consent. ([source](#)) Click [here](#) to read more about this option. The link to book an appointment is at the bottom of that page.

What does NACI say about Moderna’s and Pfizer-BioNTech’s bivalent boosters?

The most recent guidance from the National Advisory Committee on Immunization (NACI) was published on October 7, 2022. ([source](#)) Click [here](#) to read the full summary.

NACI recommendations on the use of booster doses are based on evidence of the need for and benefit of booster doses in the Canadian context. ([source](#))

NACI strongly recommends that everyone who is 65 years old and older and people 12 years of age and older who are at increased risk of severe illness from COVID-19 should be offered a fall COVID-19 vaccine booster dose, no matter how many booster doses they have previously received. ([source](#))

NACI also recommends that all other individuals 12 to 64 years of age are offered a fall COVID-19 vaccine booster dose, regardless of how many booster doses they have previously received. ([source](#))

As for what kind of fall booster dose people should get, NACI recommends a bivalent booster over an original booster. ([source](#))

NACI continues to recommend that fall COVID-19 booster doses be offered 6 months after a previous COVID-19 vaccine dose or 6 months after a previous SARS-CoV-2 infection. ([source](#)) A shorter interval of at least 3 months may be considered for people who are at higher risk of severe outcomes from COVID-19, however, based on what is known at this time, it is not expected that a booster dose be routinely provided every 3 months. ([source](#))

For more information on NACI’s recommendations on the use of COVID-19 vaccines, please refer to the [COVID-19 vaccine chapter](#) in the [Canadian Immunization Guide \(CIG\)](#), as well as additional statements on the [NACI web page](#).

Where can I book an appointment for a bivalent booster?

Book a COVID-19 vaccine at a City-run or hospital immunization clinic using the Province’s registration system ([click here](#)) or by calling 1-833-943-3900 (TTY 1-866-797-0007). ([source](#)) Vaccines are also available at pop-up clinics, pharmacies, and some family doctors. ([source](#)) Pharmacies providing a COVID-19 vaccine can be found by using the provincial webpage. ([click here](#))

Click [here](#) for the Province’s “How to book a COVID-19 vaccine appointment” webpage, which has more information. ([source](#))

Click [here](#) for details about city immunization clinics, pop-up immunization clinics, hospital immunization clinics, and transportation to clinics in Toronto. ([source](#))

Also, in general, people with disabilities in Toronto who aren't homebound or immunocompromised have been able to book at-home vaccination appointments with no difficulties. If you are afraid or unable to go to a clinic because of your specialized needs as a person with a disability, try to sign up for it. They will tell you if you are eligible, so there is no risk in asking. Click [here](#) to learn more about it, including how you can register.

Final Thoughts

Updating the formula of booster doses to be effective against variants and sub-variants is both safe and necessary to get the broadest protection against COVID-19 as possible. If you have any questions about bivalent boosters, please click [here](#) to submit them, and we will answer them anonymously.

Looking ahead to the fall and winter months, all residents are encouraged to get their next dose of vaccine when they are eligible. ([source](#)) As with vaccinations for other diseases, people are protected best when their COVID-19 vaccinations are up to date. ([source](#)) COVID-19 vaccinations have been scientifically proven to lower the risk of illness, hospitalization and death, while protecting people, their loved ones and the community. ([source](#))

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If you think you may be experiencing symptoms of COVID-19, take the self-assessment at www.ontario.ca/coronavirus. Follow all directions from your medical provider or your local health unit at the following phone numbers:

Health Connect Ontario: 811

Telehealth Ontario: 1-866-797-0000

Toronto Public Health: 416-338-7600

Peel Public Health: 905-799-7700

Durham Region Health Department: 905-668-7711

York Region Public Health: 1-877-464-9675